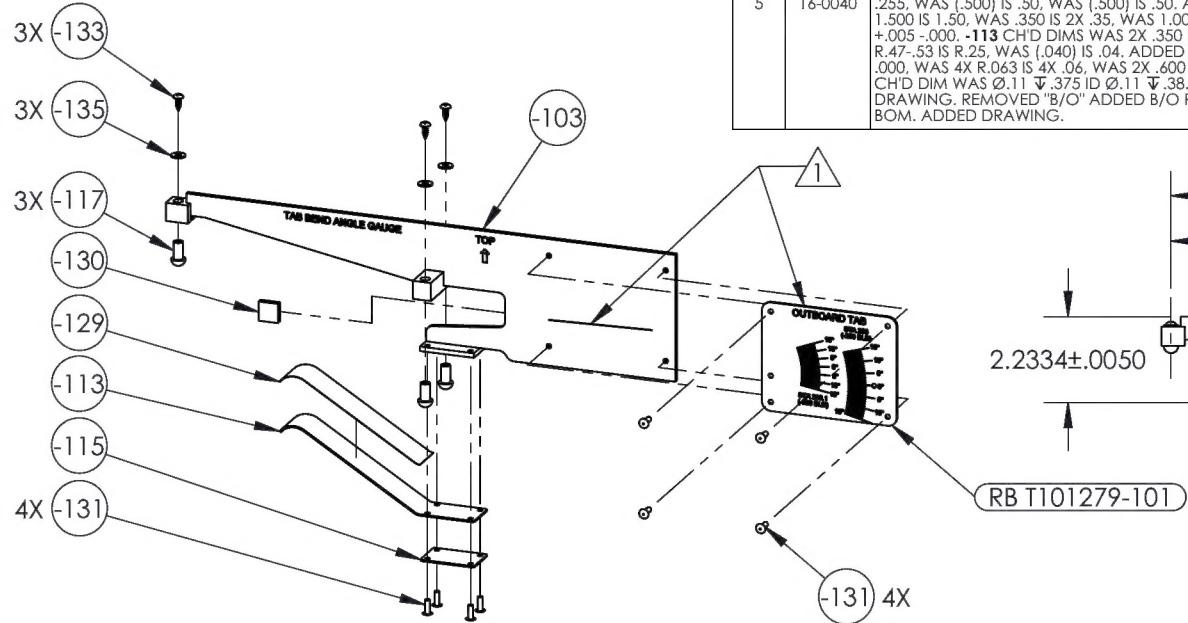


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D-105 THRU HOLES FROM Ø.125 TO .128, CH'D HOLE POSITION FROM .256 TO .266 & 3.26 TO 3.25 PER G.E.	3/14/2012	RJC	GE
2		CH'D-105 ENGRAVE NOTE TO MACHINE ENGRAVE & CH'D T/N FROM RB T101656.	3/26/2012	RJC	RW
3		-103 ADDED REF DIM (.258). -105 CH'D DIM WAS Ø.128 THRU (x4) IS .128 +.005/-0.000 THRU (4X).	2/13/2013	BIM	SE
4		-109 CH'D SLOT DIM WAS .13-.14 LIMITS IS .125 +.005 -.000, CH'D THRU HOLE WAS Ø.256-.262 TO Ø.255-.252, -113 & -115 MAT'L CHANGED WAS 301 S.S. IS 301 S.S. 1/2 HARD ROCKWELL 32. -117 CH'D DIAMETER WAS Ø.23-.24 IS Ø.245-.250.	1/21/2014	DPD	GE
5	16-0040	UPDATED TO NEW STANDARDS. ADDED OEM REF NUMBER. -103 DELETED DIMS .92-.96, .17-.21, 1.47-1.53. CH'D DIM WAS .97-.103 IS (1.000). ADDED WELD CALLOUTS FOR -109. -105 CH'D DIMS WAS (.125) IS .13 +.00 -.01, WAS 2X .250 IS 2X .250, WAS 2X 3.25 IS 2X 3.25. CH'D ENGRAVE NOTE WAS MACHINE ENGRAVE TEXT HT .188, S/N, "MADE IN USA" IS MACHINE ENGRAVE TEXT HT .188. ADDED NOTE ENGRAVE T/N, S/N, "MADE IN USA". -107 CH'D DIMS WAS 2X Ø.256-.262 ✓ Ø.30 X 100° IS Ø.252-.255 WAS .13-.14 IS .135 +.010 -.000, WAS (.500) IS .50. ADDED DIM 2X .03 X 45°. -109 CH'D DIMS WAS .125 +.005 -.000, .135 +.010 -.000, WAS Ø.252-.255 ✓ Ø.30 X 100° BOTH SIDES IS Ø.252-.255, WAS (.500) IS .50, WAS (.500) IS .50. ADDED DIM .03 X 45°. -111 CH'D DIMS WAS .125 IS .13, WAS 1.500 IS 1.50, WAS .350 IS 2X .35, WAS 1.000 IS 1.00, WAS .600 IS 2X .60, WAS 4X Ø.128 IS 4X Ø.128 +.005 -.000. -113 CH'D DIMS WAS 2X .350 IS 2X .35, WAS 2X R.063 IS R.06, WAS 2X .150 IS 2X .15, WAS R.47-.53 IS R.25, WAS (.040) IS .04. ADDED DIM 31°. -115 CH'D DIMS WAS 4X Ø.129 IS 4X Ø.128 +.005 -.000, WAS 4X R.063 IS 4X .06, WAS 2X .600 IS 2X .60, WAS .350 IS 2X .35, WAS (.040) IS .04. -117 CH'D DIM WAS Ø.11 1/4 .375 ID Ø.11 1/4 .38. ADDED SR. -127 REMOVED DASH NUMBER. -129 ADDED DRAWING. REMOVED "B/O" ADDED B/O REF PORT PLASTICS #6093-10 MODIFIED. -130 ADDED TO BOM. ADDED DRAWING.	2/19/2016	DPD	JAG

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			1	ANGLE PLATE			RB T101279-101	1
X		-103	1	FRAME WELDMENT				2
1		-105		FRAME	6061			3
1		-107		ADAPTER	6061			4
1		-109		ADAPTER	6061			5
1		-111		PAD	6061			6
		-113	1	SPRING	301 S.S. 1/2 HARD RC 32			7
		-115	1	RETAINER	301 S.S. 1/2 HARD RC 32			8
		-117	3	BUMPER	BLACK DELRIN			9
		-129	1	TAPE	TEFLON	(PORT PLASTICS #6093-10) MODIFIED		10
		-130	1	TAPE	TEFLON	(PORT PLASTICS #6093-10) MODIFIED		11
B/O		-131	8	RIVET	ALUMINUM	Ø1/8 X 3/8 (AN470AD-4-6)		1
B/O		-133	3	SELF THREADING PAN HEAD SCREW	S.S.	6-32 X 3/8 (MCMASTER-CARR #90184A127)		1
B/O		-135	3	FLAT WASHER	S.S.	#6 (MCMASTER-CARR #98017A615)		1
ASSY -103								

DRAWN BY: CLOUGH		CHECKED: CLOUGH	
OPPS APPR: ANDERSON		QA APPR: LINDSAY	
APPROVED: GILBERT		USED ON MODEL BELL 412	
SCALE 1:5	DATE 2/2/2012	SHEET 1 OF 11	

NOTE:

1. CENTER ALIGNING HOLES ON "O" LINE.  
APPLY DEVCON 5 MINUTE EPOXY TO BACK OF RB T101279-101 BEFORE ATTACHING.  
2. REF. BELL T/N: T101656-145.



TITLE GAGE ASSY. - BEND ANGLE,  
TRIM TAB, 412 MRB

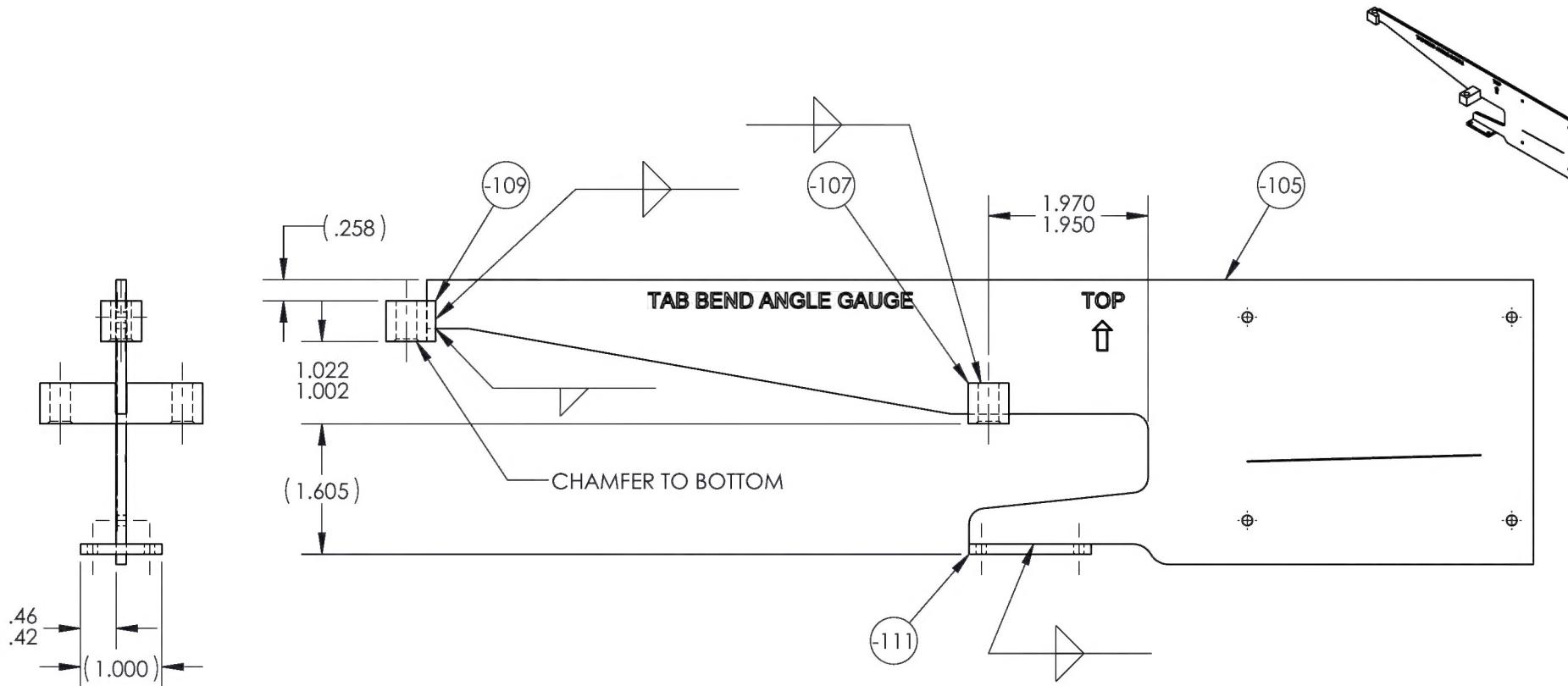
DWG NO. RB T101656-145 REV 5

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
.XXX ± .005 FRACTIONS ± 1/8  
.XX ± .01 ANGLES ± 5°  
X ± .1 SURFACES = 125

1. BREAK ALL SHARP EDGES  
.015 x 45° OR .015R  
2. DIMENSIONAL LIMITS APPLY  
AFTER PLATING  
3. INTERPRET DIM AND TOL PER  
ASME Y14.5M-2009

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			REVISIONS		
REV	ECR		DESCRIPTION	DATE	INITIAL
3			-103 ADDED REF DIM (.258).	2/13/2013	BIM
5	16-0040		-103 DELETED DIMS .92-.96, .17-.21, 1.47-1.53. CH'D DIM WAS .97-.103 IS (1.000). ADDED WELD CALLOUTS FOR -109. ADDED NOTE CHAMFER TO BOTTOM.	2/19/2016	JAG

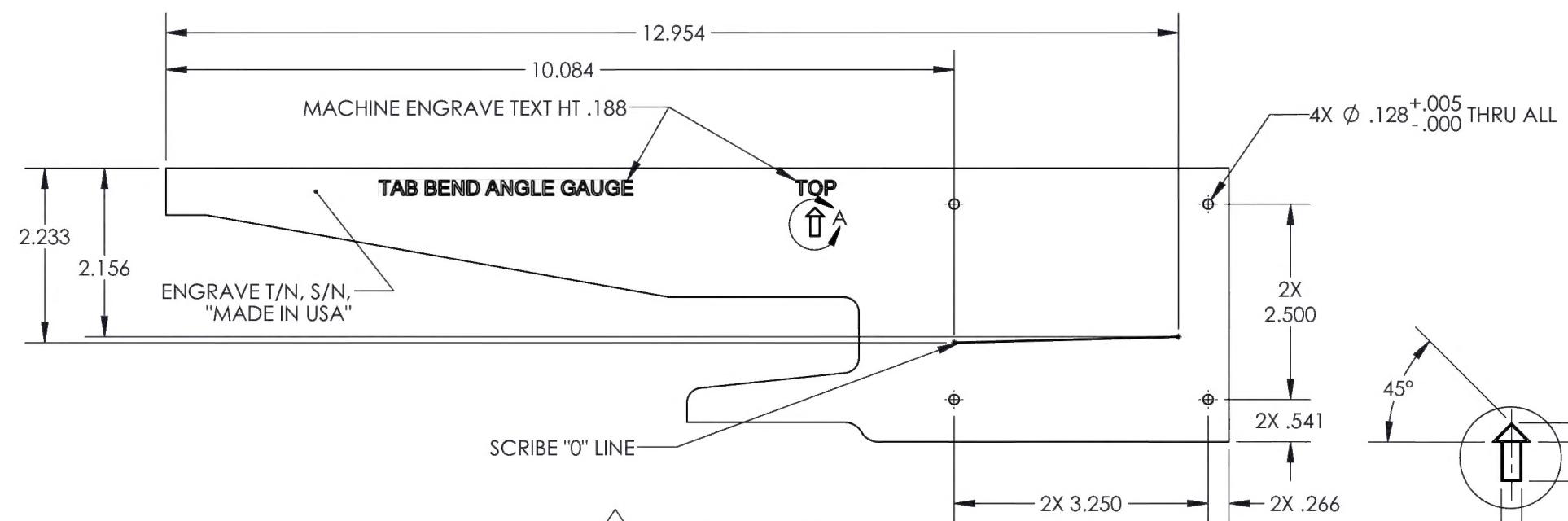
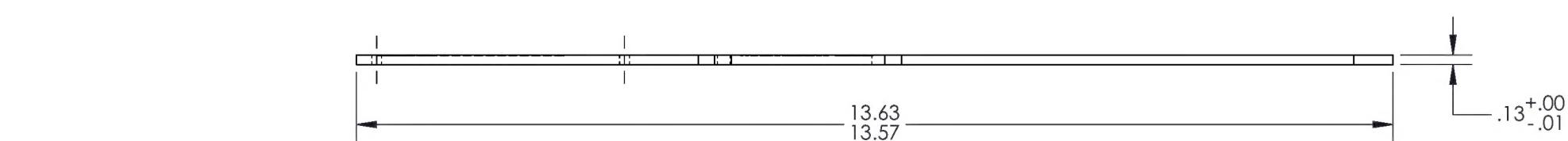
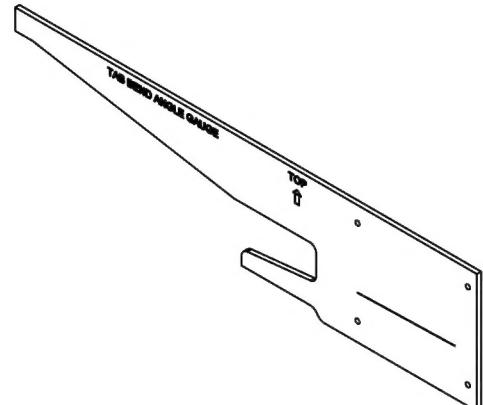
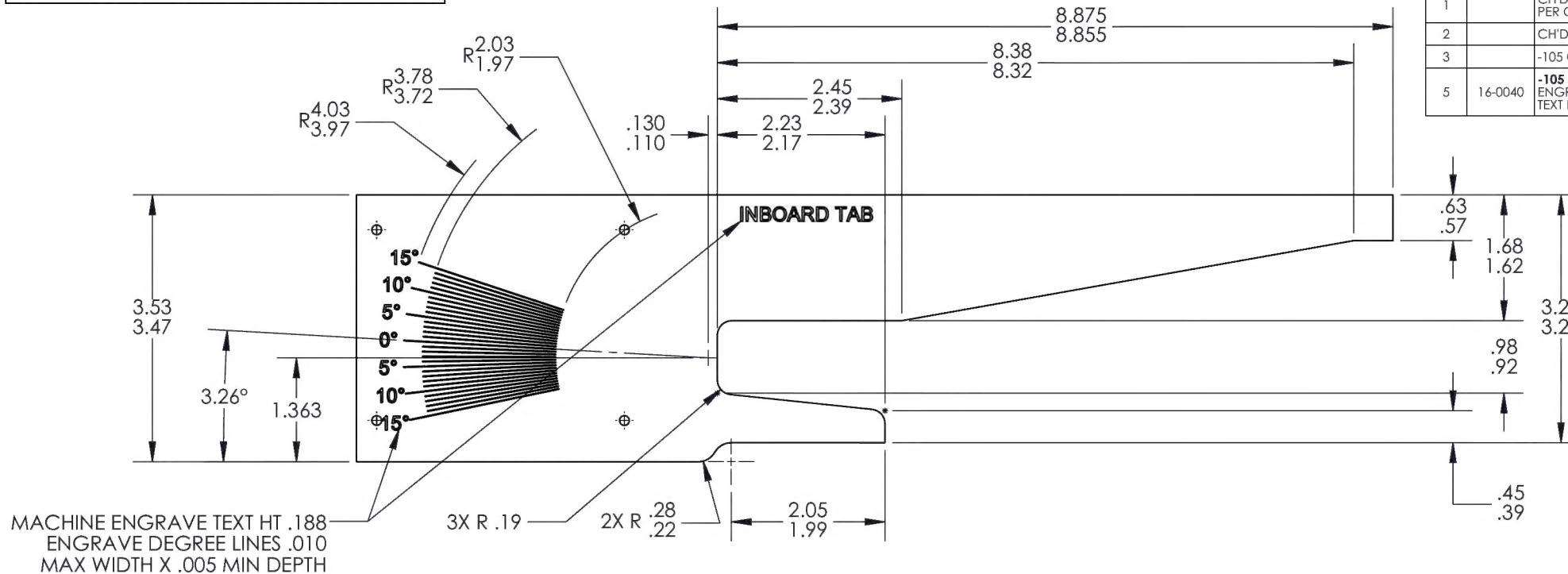


FRAME WELDMENT

<b>DART</b> AEROSPACE	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO. RB T101656-145-103 REV 5	
MATERIAL UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT	.XXX ± .005 FRACTIONS ± 1/8
TREAT	.XX ± .01 ANGLES ± 5°
FINISH	X ± .1 SURFACES = 125 ✓
SPEC	MIL-A-8625, TYPE II, CLASS II
DRAWN BY:	CLOUGH
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
USED ON MODEL	BELL 412
SCALE 1:2	DATE 2/2/2012
SHEET 2 OF 11	

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REVISIONS		
REV	ECR	DESCRIPTION
1		CH'D -105 THRU HOLES FROM Ø.125 TO .128, CH'D HOLE POSITION FROM .258 TO .266 & .326 TO .325 PER G.E.
2		CH'D -105 ENGRAVE NOTE TO MACHINE ENGRAVE.
3		-105 CH'D DIM WAS Ø.128 THRU (x4) IS Ø.128 +.005/-000 THRU (4X).
5	16-0040	-105 CH'D DIMS WAS (.125) IS .13 +.00 -.01, WAS 2X 2.50 IS 2X 2.500, WAS 2X 3.25 IS 2X 3.250. CH'D ENGRAVE NOTE WAS MACHINE ENGRAVE TEXT HT .188, S/N, "MADE IN USA" IS MACHINE ENGRAVE TEXT HT .188. ADDED NOTE ENGRAVE T/N, S/N, "MADE IN USA".

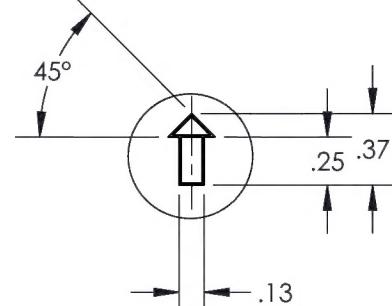


1 OUTBOARD VIEW

(-105)

FRAME

DETAIL A  
SCALE 1 : 1



NOTE:  
1 OUTBOARD VIEW ROTATED 180° FROM INBOARD VIEW TO SHOW ENGRAVING FOR CLARITY.

**DART**  
AEROSPACE

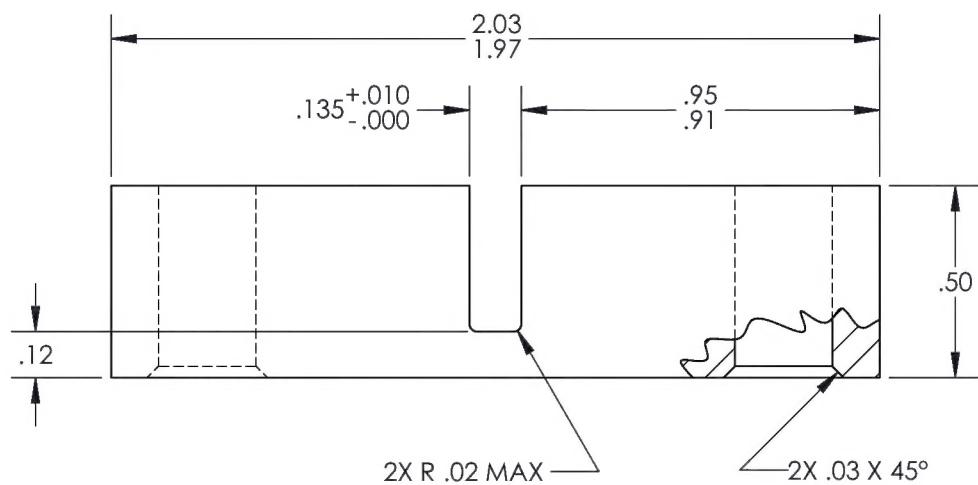
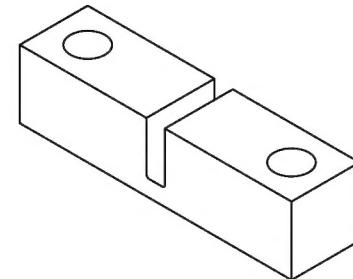
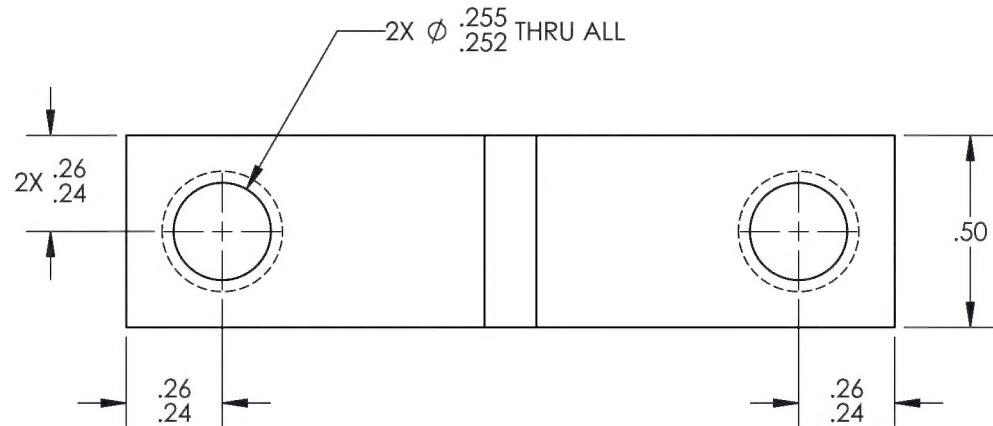
TITLE GAGE ASSY. - BEND ANGLE,  
TRIM TAB, 412 MRB

DWG NO. RB T101656-145-105 REV 5

MATL 6061	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° X ± .1 SURFACES = 125
HEAT TREAT	
FINISH SEE -103	
SPEC	
DRAWN BY: CLOUGH	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	BELL 412
SCALE 1:2	DATE 2/2/2012
SCALE 1:2	SHEET 3 OF 11

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REV			ECR			DESCRIPTION			REVISIONS		
5	16-0040		-107 CH'D DIMS WAS 2X Ø.256-.262 ✓ Ø.30 X 100° IS Ø.252-.255, WAS .13-.14 IS .135 +.010 -.000, WAS (.500) IS .50. ADDED DIM 2X .03 X 45°.					DATE	INITIAL	APPROVED	



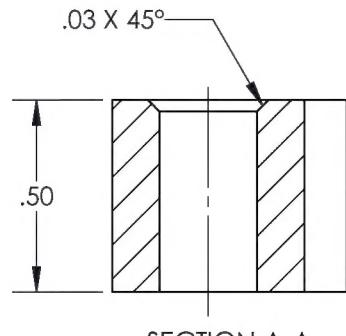
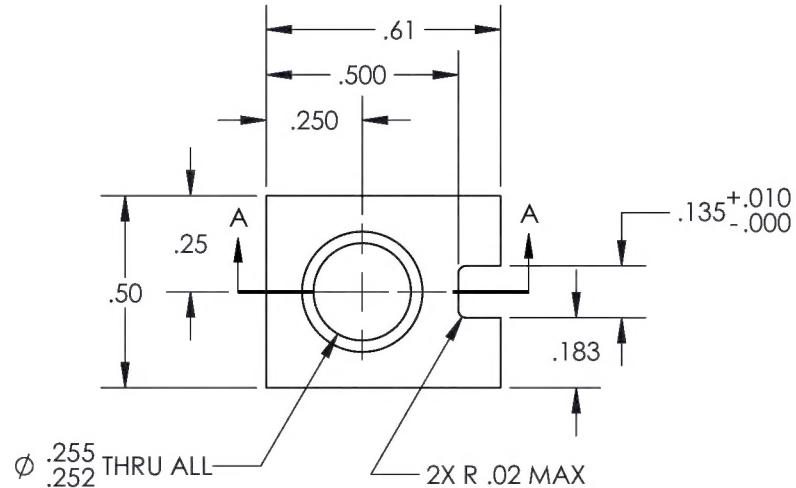
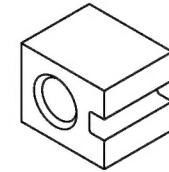
-107

ADAPTER

<b>DART</b> <b>AEROSPACE</b>	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO. RB T101656-145-107 REV 5	
MAT'L 6061 UNLESS OTHERWISE SPECIFIED	
HEAT DIMENSIONS ARE IN INCHES	
TREAT FRACTIONS ± 1/8	
FINISH SEE -103 .XX ± .01 ANGLES ± 5°	
SPEC .X ± .1 SURFACES = 125 ✓	
DRAWN BY: CLOUGH 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: CLOUGH 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY USED ON MODEL	
APPROVED: GILBERT BELL 412	
SCALE 2:1	DATE 2/2/2012
SHEET 4 OF 11	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
4		-109 CH'D SLOT DIM WAS .13-.14 LIMITS IS .125 +.005 -.000. CH'D THRU HOLE WAS Ø.256 .262 TO Ø.255-.252.	1/21/2014	DPD	GE
5	16-0040	-109 CH'D DIMS WAS .125 +.005 -.000 IS .135 +.010 -.000, WAS Ø.252-.255 ✓ Ø.38 X 100° BOTH SIDES IS Ø.252-.255, WAS (.500) IS .50, WAS (.500) IS .50. ADDED DIM .03 X 45°.	2/19/2016	DPD	JAG



SECTION A-A

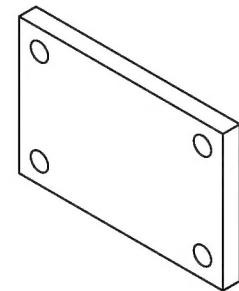
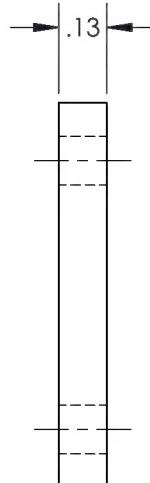
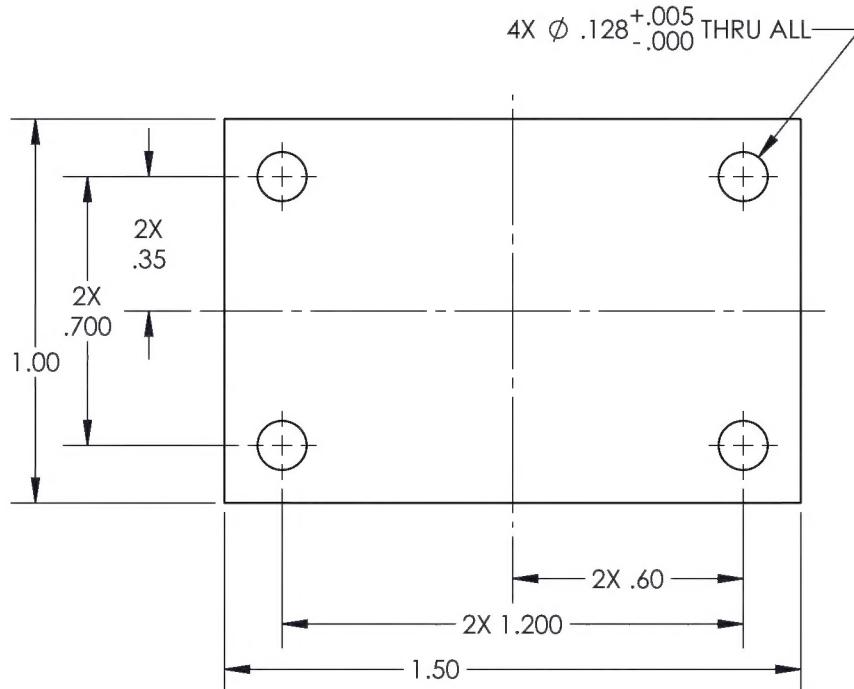
(-109)

ADAPTER

<b>DART</b> AEROSPACE	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO. RB T101656-145-109 REV 5	
MAT'L 6061 UNLESS OTHERWISE SPECIFIED HEAT DIMENSIONS ARE IN INCHES TREAT FRACTIONS ± 1/8 FINISH SEE -103 .XXX ± .005 SPEC .XX ± .01 ANGLES ± 5° DRAWN BY: CLOUGH .X ± .1 SURFACES = 125 ✓ CHECKED: CLOUGH OPPS APPR: ANDERSON QA APPR: LINDSAY USED ON MODEL APPROVED: GILBERT BELL 412 SCALE 2:1 DATE 2/2/2012 SHEET 5 OF 11	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
5	16-0040	-111 CH'D DIMS WAS .125 IS .13, WAS 1.500 IS 1.50, WAS .350 IS 2X .35, WAS 1.000 IS 1.00, WAS .600 IS 2X .60, WAS 4X Ø.128 IS 4X Ø.128 +.005-.000.	2/19/2016	DPD	JAG



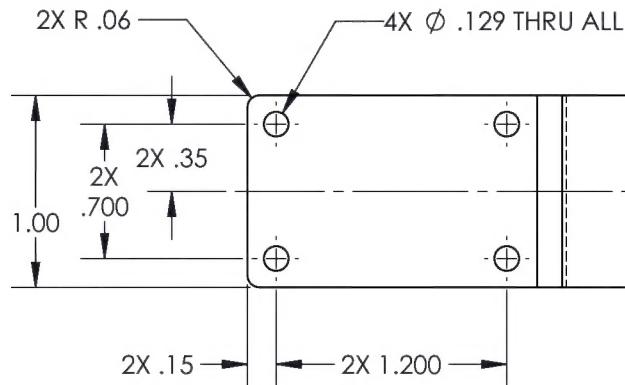
(-111)

PAD

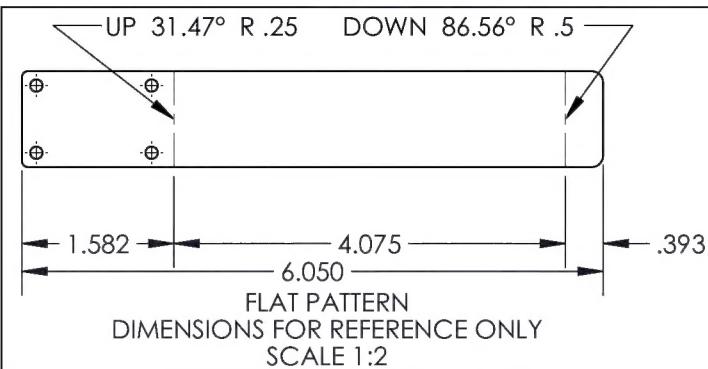
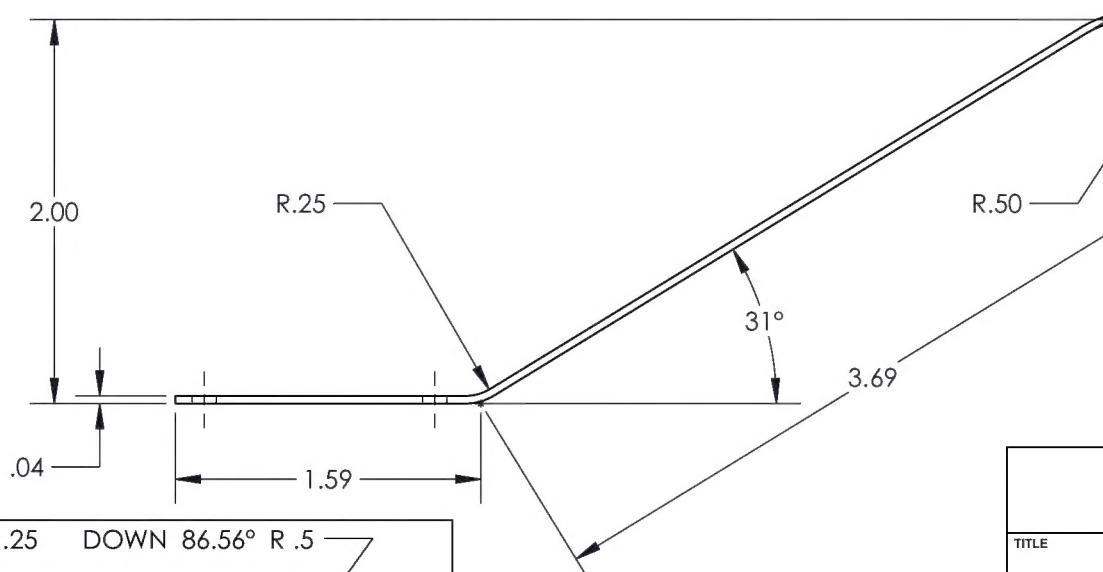
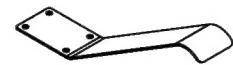
<b>DART</b> AEROSPACE	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO.	RB T101656-145-111
REV	5
MATERIAL 6061 UNLESS OTHERWISE SPECIFIED	
HEAT FRACTIONS ± 1/8	
TREAT .XXX ± .005	ANGLES ± 5°
FINISH SEE -103 .XX ± .01	SURFACES = 125 ✓
SPEC X ± .1	
DRAWN BY: CLOUGH 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: CLOUGH 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY USED ON MODEL	
APPROVED: GILBERT BELL 412	
SCALE 2:1	DATE 2/2/2012
SHEET 6 OF 11	

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REV			ECR			DESCRIPTION			REVISIONS		
									DATE	INITIAL	APPROVED
4						-113 MAT'L CHANGED WAS 301 S.S. IS 301 S.S. 1/2 HARD ROCKWELL 32			1/21/2014	DPD	GE
5	16-0040					-113 CH'D DIMS WAS 2X .350 IS 2X .35, WAS 2X R.063 IS R.06, WAS 2X .150 IS 2X .15, WAS R.47-.53 IS R.25, WAS (.040) IS .04. ADDED DIM 31°.			2/19/2016	DPD	JAG



2X R.12



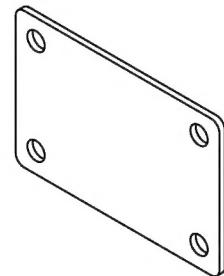
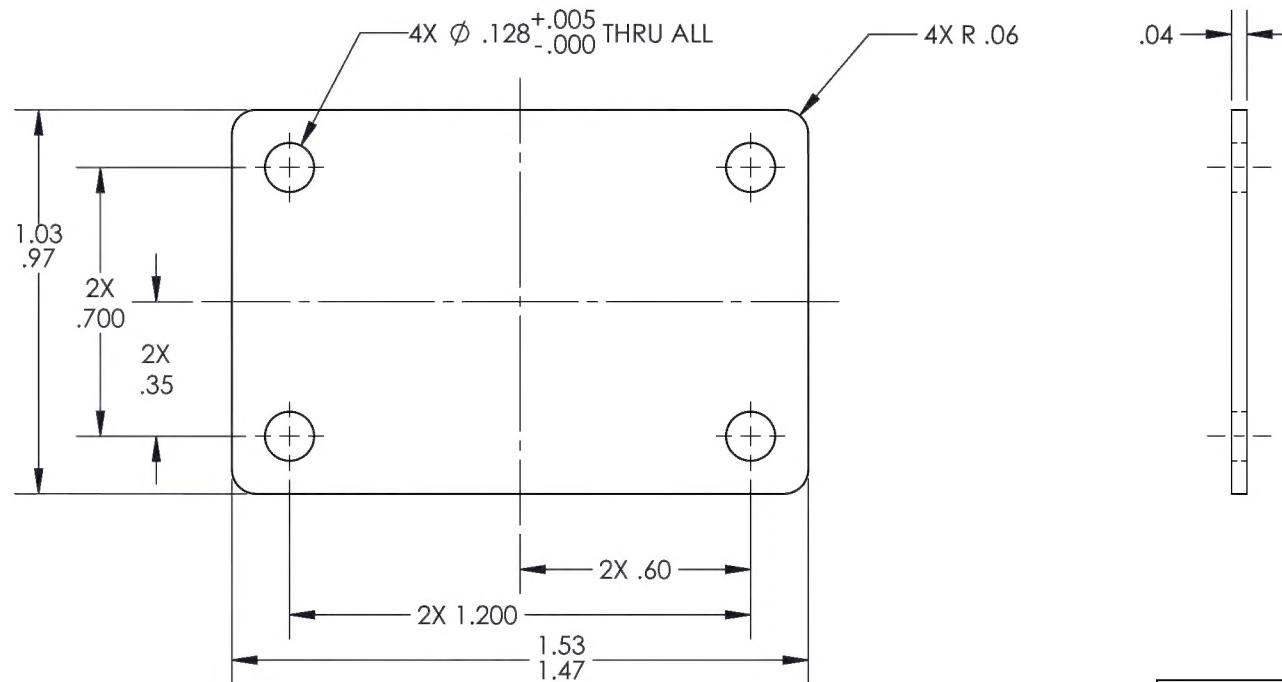
-113

SPRING

DART AEROSPACE	
TITLE	
GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO.	RB T101656-145-113
REV	5
MATERIAL 301 S.S. 1/2 HARD RC 32	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT	.XXX ± .010 FRACTIONS ± 1/8
TREAT	.XX ± .03 ANGLES ± 1°
FINISH	X ± .1 SURFACES = 125
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY:	CLOUGH
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
USED ON MODEL	BELL 412
SCALE	1:1
DATE	2/2/2012
SHEET 7 OF 11	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
4		-115 MAT'L CHANGED WAS 301 S.S. IS 301 S.S. 1/2 HARD ROCKWELL 32.	1/21/2014	DPD	GE
5	16-0040	-115 CH'D DIMS WAS 4X Ø.129 IS 4X Ø.128 +.005 -.000, WAS 4X R.063 IS 4X .06, WAS 2X .600 IS 2X .60, WAS 2X .350 IS 2X .35, WAS (.040) IS .04.	2/19/2016	DPD	JAG



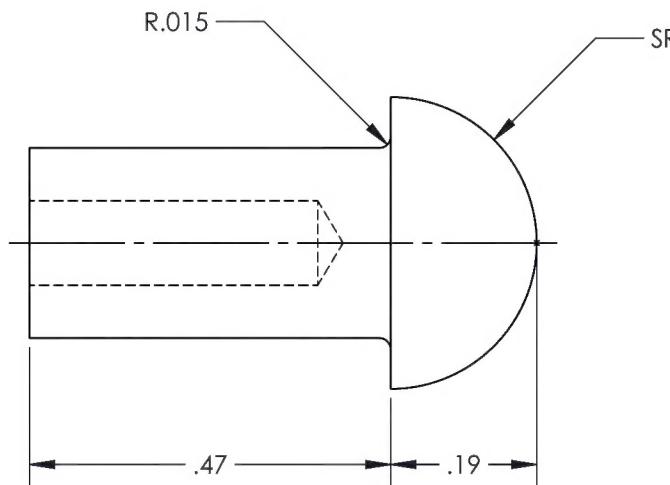
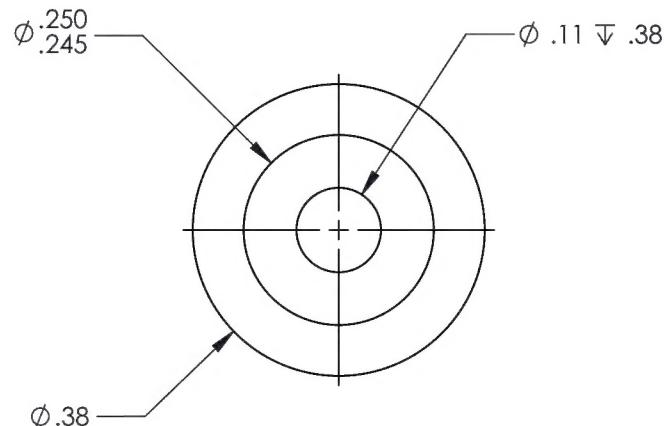
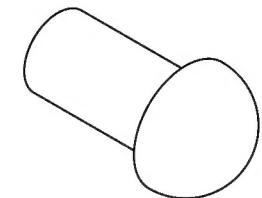
-115

RETAINER

DART AEROSPACE	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO.	RB T101656-145-115
REV	5
MATERIAL 301 S.S. 1/2 HARD RC 32	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT	.XXX ± .005 FRACTIONS ± 1/8
TREAT	.XX ± .01 ANGLES ± 5°
FINISH	X ± .1 SURFACES = 125
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY:	CLOUGH
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
USED ON MODEL	BELL 412
SCALE	2:1
DATE	2/2/2012
SHEET 8 OF 11	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
4		-117 CH'D DIAMETER WAS .23-.25 IS Ø.245-.250.	1/21/2014	DPD	GE
5	16-0040	-117 CH'D DIM WAS Ø.11 ± .375 ID Ø.11 ± .38. ADDED SR.	2/19/2016	DPD	JAG



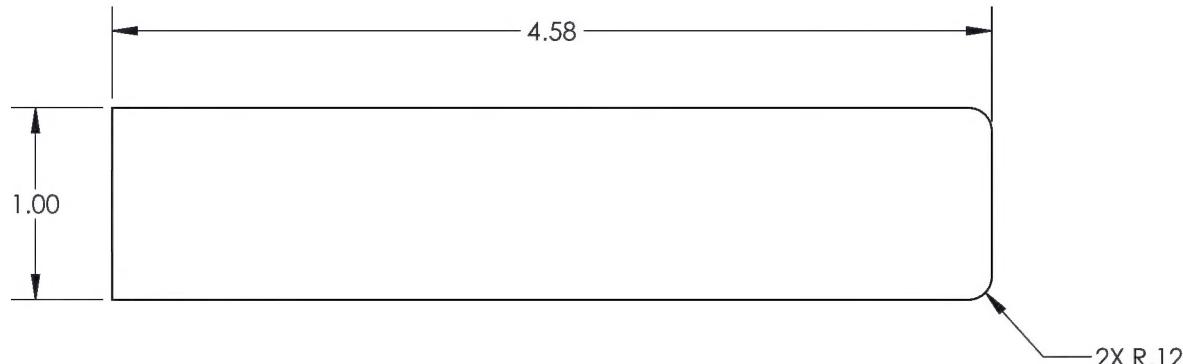
-117

BUMPER

<b>DART</b> AEROSPACE	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO.	RB T101656-145-117
REV	5
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
MAT'L	BLACK DELRIN
HEAT	.XXX ± .005 FRACTIONS ± 1/8
TREAT	.XX ± .01 ANGLES ± 5°
FINISH	X ± .1 SURFACES = 125 ✓
SPEC	
DRAWN BY:	CLOUGH
CHECKED:	CLOUGH
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	GILBERT
USED ON MODEL	BELL 412
SCALE	4:1
DATE	2/2/2012
SHEET 9 OF 11	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
5	16-0040	-129 ADDED DRAWING.	2/19/2016	DPD	JAG



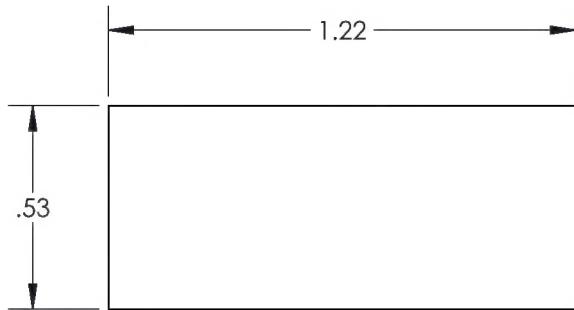
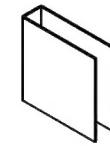
-129

TAPE

<b>DART AEROSPACE</b>	
TITLE GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO. RB T101656-145-129 REV 5	
MATERIAL TEFILON UNLESS OTHERWISE SPECIFIED HEAT .XXX ± .010 FRACTIONS ± 1/8 TREAT .XX ± .03 ANGLES ± 1° FINISH X ± .1 SURFACES = 125 ✓	
SPEC DRAWN BY: CLOUGH CHECKED: CLOUGH OPPS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT SCALE 1:1 DATE 2/2/2012 SHEET 10 OF 11	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 USED ON MODEL BELL 412	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
5	16-0040	-130 ADDED DRAWING.	2/19/2016	DPD	JAG



-130

TAPE

<b>DART</b> AEROSPACE	
TITLE      GAGE ASSY. - BEND ANGLE, TRIM TAB, 412 MRB	
DWG NO.    RB T101656-145-130    REV 5	
MATERIAL    TEFILON                    UNLESS OTHERWISE SPECIFIED HEAT                                        DIMENSIONS ARE IN INCHES TREAT                                        .XXX ± .010    FRACTIONS ± 1/8 FINISH                                        .XX ± .03        ANGLES ± 1° SPEC    X ± .1            SURFACES = 125 ✓	
DRAWN BY:    CLOUGH CHECKED:      CLOUGH OPPS APPR:    ANDERSON QA APPR:      LINDSAY                    USED ON MODEL APPROVED:     GILBERT                    BELL 412	
SCALE    2:1	DATE    2/2/2012
SHEET 11 OF 11	